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10/530,208	04/04/2005	Ryutaro Yamanaka	L9289.05121	9601

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EXAMINER	
YOUNG, JANELLE N	

ART UNIT	PAPER NUMBER
2618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/530,208	YAMANAKA ET AL.	
	Examiner	Art Unit	
	Janelle N. Young	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-3, 5,7, and 9-17 have been considered but are moot in view of the new ground(s) of rejection.

Dapper teaches a telecommunication system; which reads on claimed communication apparatus, comprising: a radio section that receives a radio frequency; which reads on claimed radio signal, to convert into a digitized signal; which reads on claimed baseband signal (Col. 35, lines 55-60; Col. 37, lines 17-39; Col. 39, lines 11-24; and Col. 11, lines 41-51 of Dapper).

What Dapper does not explicitly teach is a communication apparatus that is adaptable and reconfigurable of different radio communication systems.

However Neumann et al. teaches a communication apparatus wherein: a master baseband processor adapted to provide baseband functions according to a first telecommunications standard in first mode; which reads on claimed first baseband signal processor that executes baseband signal processing that is common among a plurality of radio communication systems, and a slave baseband co-processor adapted to provide baseband function according to a second telecommunications standard in a second mode; which reads on claimed a second baseband signal processor that executes baseband signal processing that is different among the plurality of radio communication systems and a reconfiguring section that reconfigures only the second baseband signal processor based on programming data of a new radio communication

system upon switching of radio communication systems (Fig. 1 & 2; Abstract; Page 1, Para 0006-0009; Page 2, Para 0022 and Page 3, Para 0037 of Neumann et al.).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a wireless telephone includes first baseband processor functioning as a system master and second baseband processor functioning as a system slave as taught by Neumann et al., in the method for controlling a plurality of service units in a telecommunication system with a multi-carrier transmission scheme of Dapper, because Dapper already teaches a method for controlling a plurality of service units in a telecommunications system with a multi-carrier telephony transport, making it capable of providing different communication services (Col. 1, lines 27-31 of Dapper).

The motivation of this combination would be the effect of telecommunications system with a multi-carrier telephony transport on the radio telephone with a master-slave processor for dual mode mobile telephone would useable in two networks, as taught by Neumann et al. in Col. 1, lines 34-41, because with the widespread deployment of each different system most user cellular/mobile device comply with one standard and is inoperable in a network communicating in another system.

Response to Amendment

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-12 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dapper (US Patent 6487405) and further in view of Neumann et al. (US Pub 2002/0141441).

As for claim 1, Dapper teaches a telecommunication system; which reads on claimed communication apparatus, comprising:

a radio section that receives a radio frequency; which reads on claimed radio signal, to convert into a digitized signal; which reads on claimed baseband signal (Col. 35, lines 55-60; Col. 37, lines 17-39; Col. 39, lines 11-24; and Col. 11, lines 41-51 of Dapper).

What Dapper does not explicitly teach is a communication apparatus that is adaptable and reconfigurable of different radio communication systems.

However Neumann et al. teaches a communication apparatus wherein: a master baseband processor adapted to provide baseband functions according to a first telecommunications standard in first mode; which reads on claimed first baseband signal processor that executes baseband signal processing that is common among a plurality of radio communication systems, and a slave baseband co-processor adapted to provide baseband function according to a second telecommunications standard in a second mode; which reads on claimed a second baseband signal processor that executes baseband signal processing that is different among the plurality of radio communication systems and a reconfiguring section that reconfigures only the second

baseband signal processor based on programming data of a new radio communication system upon switching of radio communication systems (Fig. 1 & 2; Abstract; Page 1, Para 0006-0009; Page 2, Para 0022 and Page 3, Para 0037 of Neumann et al.).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a wireless telephone includes first baseband processor functioning as a system master and second baseband processor functioning as a system slave as taught by Neumann et al., in the method for controlling a plurality of service units in a telecommunication system with a multi-carrier transmission scheme of Dapper, because Dapper already teaches a method for controlling a plurality of service units in a telecommunications system with a multi-carrier telephony transport, making it capable of providing different communication services (Col. 1, lines 27-31 of Dapper).

The motivation of this combination would be the effect of telecommunications system with a multi-carrier telephony transport on the radio telephone with a master-slave processor for dual mode mobile telephone would useable in two networks, as taught by Neumann et al. in Col. 1, lines 34-41, because with the widespread deployment of each different system most user cellular/mobile device comply with one standard and is inoperable in a network communicating in another system.

As for claim 2, Dapper teaches a communication apparatus, wherein the baseband signal processor comprises a synchronization section that establishes synchronization of communications, and a compensator that corrects amplitude or a

phase of the baseband signal (Col. 37, lines 17-63; Col. 57, line 58-Col. 58, line 36; and Col. 59, lines 1-29 of Dapper).

As for claim 3, Dapper teaches a communication apparatus, wherein the baseband signal processor comprises an FFT section that executes orthogonal transform on the baseband signal, and the reconfiguring section reconfigures a processing portion of the FFT section, the processing portion varying with the number of items of data subjected to the orthogonal transform (Col. 3, lines 14-25; Col. 10, lines 6-44; and Col. 29, lines 8-21 of Dapper).

As for claim 4, Dapper teaches a communication apparatus, wherein the synchronization section determines synchronization timing using a baseband signal obtained by demodulating a signal mapped on a subcarrier by the orthogonal transform in the FFT section (Col. 3, lines 14-25; Col. 10, lines 6-44; Col. 10, lines 19-48; and Col. 29, lines 8-21 of Dapper).

As for claim 5, Dapper teaches a communication apparatus, wherein the second baseband signal processor comprises a correlation section that executes correlation processing of the baseband signal, and the reconfiguring section reconfigures a combination of operations in the correlation section (Col. 52, line 3-Col. 53, line 2).

As for claim 6, Dapper teaches a communication apparatus, wherein the synchronization section determines synchronization timing using a result of the correlation processing of the baseband signal in the correlation section (Col. 28, lines 12-30 and Col. 52, line 3-Col. 53, line 2 of Dapper).

As for claim 7, Dapper teaches a communication apparatus, wherein the second baseband signal processor comprises an error controller which performs error correction of the baseband signal or a retransmission request when the baseband signal has an error, and the reconfiguring section reconfigures a processing portion of the error controller, the processing portion different among a plurality of error correction systems or error detection systems (Col. 53, lines 44-52 of Dapper).

As for claim 8, Dapper teaches a communication apparatus, further comprising: a storage section that stores a result of processing of the error controller, wherein the reconfiguring section reconfigures connection with an output destination of content stored in the storage section (Col. 45, line 49-Col. 46, line 6 of Dapper).

As for claim 9, Dapper teaches a communication apparatus, wherein the reconfiguring section acquires information required for reconfiguration from the radio signal received in the radio section to reconfigure the second baseband signal processor (Col. 9, lines 21-45; Col. 14, lines 7-14; and Col. 19, lines 19-48 of Dapper).

As for claim 10, Dapper teaches a communication apparatus, further comprising:

an interface section that reads out data stored in the storage section, wherein the reconfiguring section acquires information required for reconfiguration from the storage section via the interface section to reconfigure the second baseband signal processor (Col. 9, lines 21-45 and Col. 91, line 58-Col. 92, line 29 of Dapper).

As for claim 11, Dapper teaches a communication apparatus, further comprising:

an interface section that receives information required for reconfiguration, in wired connection, wherein the reconfiguring section acquires the information required for reconfiguration from the storage section via the interface section to reconfigure the second baseband signal processor (Col. 9, lines 21-45 and Col. 91, line 58-Col. 92, line 29 of Dapper).

As for claim 12, Dapper teaches a communication apparatus, further comprising:

an interface section that receives information required for reconfiguration, in specific power-saving radio communications, wherein the reconfiguring section acquires the information required for reconfiguration from the storage section via the interface section to reconfigure the second baseband signal processor (Col. 47, line 41-Col. 48, line 9; Col. 69, line 57-Col. 67, line 36; Col. 91, lines 40-57; and Col. 113, line 49-Col. 114, line 4 of Dapper).

Regarding claim 17, see explanation as set forth regarding claim 1 (apparatus claim) because the claimed method for reconfiguring a digital signal processing section would perform the apparatus steps.

3. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dapper (US Patent 6487405) and Neumann et al. (US Pub 2002/0141441) as applied to claim 1 above, and further in view of Buhrmann et al. (US Patent 5854984).

As for claim 13, Dapper teaches a communication apparatus, further comprising:

a radio-section communication section that relays communications between the radio section and the baseband signal processor; and a CPU

communication section that relays communications between the first and second baseband signal processors and the reconfiguring section (Col. 35, lines 55-60; Col. 37, lines 17-39; Col. 39, lines 11-24; and Col. 11, lines 41-51 of Dapper).

What Dapper and Neumann et al. does not explicitly teach is a communication apparatus being attachable/detachable.

However Buhrmann et al. teaches a communication apparatus having a baseband signal processor is attachable/detachable (Fig. 1 & 4; Col. 6, lines 49-60, 59-64; Col. 4, lines 29, 39-42; and Col. 9, lines 20-31 of Buhrmann et al.).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate the radio telephone with a detachable pager system including a radio telephone handset and a pager that detachably mounts to the telephone handset as taught by Buhrmann et al., in the communication system of Dapper, because Dapper already teaches A method for controlling a plurality of service units in a telecommunications system with a multi-carrier telephony transport, making it capable of providing pager service and wireless telephone communications (Col. 1, lines 27-31 of Dapper).

The motivation of this combination would be the effect of telecommunications system with a multi-carrier telephony transport on the radio telephone with detachable pager system is that power consumption of the system is minimized, the power used at the remote units for the transport of data are all in one system, as taught by Dapper in Col. 1, lines 34-41, because as demand for wireless service grows so will capacity. A radio telephone and pager system includes a radio telephone handset and a pager that

detachably mounts to the handset. The pager employs a transceiver that provides both paging service, such as a messaging service, and radio telephone service, such as cellular service, when the pager is mounted. In addition, the transceiver provides the pager service when the pager is detached (Abstract of Buhrmann et al.).

The incorporation of the telecommunications system with a multi-carrier telephony transport with the radio telephone/page achieves a reduction in a number of components while enabling subscribers to use a single telephone system to provide both devices and both programs/services/system (Abstract and Col. 1, lines 48-56 of Buhrmann et al.).

As for claim 14, Buhrmann et al. teaches a communication apparatus, further comprising:

> an attaching/detaching detector that detects attaching/detaching of the baseband signal processor; and a first power source supplier, which supplies power to the radio section, and when detaching of the second baseband signal processor is detected, halts supply of the power to the radio section (Col. 6, lines 4-35 of Buhrmann et al.).

4. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dapper (US Patent 6487405) and Neumann et al. (US Pub 2002/0141441) as applied to claim 1 above, and further in view of Buhrmann et al. (US Patent 5854984) and Silver et al. (US Patent 5828949).

As for claims 15-16, Dapper teaches a communication apparatus, further comprising:

a radio communication section that performs radio communications(Col. 35, lines 55-60; Col. 37, lines 17-39; Col. 39, lines 11-24; and Col. 11, lines 41-51 of Dapper);

What Dapper does not explicitly teach is a communication apparatus being attachable/detachable.

Buhrmann et al. teaches a communication apparatus having a baseband signal processor is attachable/detachable (Fig. 1 & 4; Col. 6, lines 49-60, 59-64; Col. 4, lines 29, 39-42; and Col. 9, lines 20-31 of Buhrmann et al.), an application section that performs display, replay and edition of data of image, music and mail (Col. 3, lines 1-14; Col. 4, lines 25-40; Col. 5, line 60- Col. 6, line 3; Col. 6, line 61-Col. 7, line 6; and Col. 7, lines 17-34 of Buhrmann et al.), and a connector that relays communications between the radio communication section and the application section, wherein the radio communication section and the application section are separable, the radio communication section comprises a radio-section communication section that relays communications between the radio section and the first and second baseband signal processor, a CPU communication section that relays communications between the second baseband signal processor and the reconfiguring section (Abstract; Col. 1, lines 48-56; Col. 3, lines 1-25; Col. 3, line 63-Col. 4, line 24; and Col. 5, line 3-Col. 7, line 33 of Buhrmann et al.).

What Dapper, Neumann et al., and Buhrmann et al. do not explicitly teach is a communication apparatus having two respectable CPUs.

However Silver et al. teaches a communication apparatus having a first CPU, an attaching/detaching detector that detects attaching/detaching of the baseband signal processor, a first power source supplier which supplies power to the radio section, and when detaching of the baseband signal processor is detected, halts supply of the power to the radio section, and an application communication section that relays communications with the application section, and the application section comprises a call control communication section that relays communications with the radio communication section, a separation detector that detects separation of the radio communication section, a second power source supplier which supplies power to the radio communication section, and when separation of the radio communication section is detected, halts supply of the power to the radio section, and a second CPU that halts communications to the radio communication section when separation of the radio communication section is detected (Fig. 3 and Col. 5, line 6-Col. 5, line 11 of Silver et al.).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate a network that employs CDMA access techniques, as taught by Silver et al., in the telecommunications system with a multi-carrier telephony transport of Dapper and the radio telephone with a detachable pager system of Buhrmann et al., because Dapper and Buhrmann et al., already teach minimizing

power consumption of the communication system, the power used at the remote units for the transport of data are all in one system.

The motivation of this combination would be the minimizing power consumption of the telecommunications system detachable telecommunication device with a multi-carrier telephony transport. Silver et al. teaches a method within a radio telecommunications network for delivering a telephone call to a mobile station having a telephone portion, a pager portion, and a relay switch between the telephone portion and the pager portion. Data indicating that the mobile station is capable of receiving standard paging messages from a paging network is recorded in a home location register (HLR) associated with the mobile station. The method enables a subscriber to turn off the telephone portion to conserve battery power. When a call is received in a cellular network for the mobile station, and the mobile station cannot be contacted, the cellular network requests an associated paging network to send a page to the pager portion. The paging network is requested to page the pager portion of the mobile station via a datalink from the cellular network.

The incorporation of detachable telecommunication device with a multi-carrier telephony transport with a method within a radio telecommunications network of delivering a telephone call to a mobile station having a telephone portion, a pager portion, and a relay switch between the telephone portion and the pager portion. The radio telecommunications network has a cellular network and a paging network would be to reduce mobile paging load on a radio telephone link. In addition, the mobile station would be more capable of receiving standard paging messages from the paging

network; receiving the telephone call in the cellular network; determining whether the mobile station is inactive; and determining from the data in the HLR whether the mobile station is capable of receiving standard paging messages, upon determining that the mobile station is inactive.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schwaller et al. (US Patent 6230026) invention relates in general to wireless communication networks (e.g. cellular and personal communication systems) and is particularly directed to an architecture used to support frequency hopping associated therewith.

Alberth, Jr. et al. (US Patent 6349216) invention generally relates to a high efficiency power amplifier system. More specifically, this invention relates to a load envelop following (LEF) amplifier system for efficient amplification in a linear modulation scheme.

Spiegel et al. (US Pub 2002/0150154) relates to a multi-mode receiver comprises a programmable baseband module to filter a modulated signal according to the characteristics of the receiving mode. The programmable baseband module may further comprise a programmable convolver capable of switching between the receiving modes of the multi-mode receiver by programming an impulse response of a filter to the programmable convolver.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle N. Young whose telephone number is (571) 272-2836. The examiner can normally be reached on Monday through Friday: 8:30 am through 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JNY
July 1, 2007

NAY MAUNG
SUPERVISORY PATENT EXAMINER